Pearls from 1000 robotic femtosecond bladeless laser-assisted cataract procedures

Statement of the Problem: Robotic Femtosecond Bladeless Laser Cataract Surgery is the newest and most controversial procedure in the world’s most common surgical procedure cataract surgery with intraocular lens implantation. First performed in England in 1949 by Sir Harold Ridley, the technology for both removing the cataractous lens and implanting a corrective intraocular replacement lens has reached new heights of precision and success with the introduction of the femtosecond laser, approved by the FDA for use in patients (2011). The purpose of this study is to describe the experience of one surgeon who has performed over 1000 robotic femtosecond bladeless laser-assisted cataract procedures and review common pearls that have led to excellent outcomes.

Methodology & Theoretical Orientation: 1000 patient procedures were reviewed to determine common complications and findings that would improve outcomes compared to early Femtosecond Laser-assisted Cataract Surgeries (FLACS).

Findings: Common complications included: difficulty docking the laser on Asian patients and those with small eyelid fissures, incomplete anterior capsulotomy with early interface attachments, posterior capsule blow-out, decentered Lens capsulotomy and small pupil and Floppy Iris Syndrome.

Conclusion & Significance: Whilst some conservative ophthalmologists have criticized Femtosecond Laser-assisted Cataract Surgery (FLACS) as an overhyped gimmick, its usefulness in patients with dense, mature and hyper-mature (Morgagnian) cataracts and in assuring the accurate centration of newer multi-focal intraocular lens implants is unquestioned in the authors opinion. Robotic Femtosecond Bladeless Laser-assisted Cataract Surgery is here to stay and will be the future of the most common surgical procedure performed throughout the world.

Biography
John S Jarstad is an Associate Professor and Director of Cataract and Refractive (LASIK) surgery at University of Missouri School of Medicine Department of Ophthalmology. He is a Graduate of Brigham Young University (Provo, Utah), MD from University of Washington (Seattle), and completed his Internship, Residency and Clinical Fellowship in Ophthalmology at Mayo Clinic (Rochester, Minnesota). He was a Medical Student Research Fellow at National Institutes of Health (Bethesda, Maryland). He has lectured and taught cataract surgery at University of Washington in Seattle and as visiting professor in Indonesia, Austria, the Philippines, North Korea, Vietnam, Cambodia, Zimbabwe, Egypt, Angola, Nigeria, Madagascar and England, where he was elected to the Royal Society of Medicine in 2006. He was named by Consumer Research Council one of “America's Top Ophthalmologists” and by Newsweek magazine as one of 15 Top Laser Eye Surgeons in the USA. He has performed over 1000 robotic femtosecond bladeless laser cataract procedures since 2012. He is the author of 60 publications or presentations and one book.

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